Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems	)	ET Docket No. 00-258
	)	
The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band	)	IB Docket No. 99-81
	)	
Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520 / 2670-2690 MHz Frequency Bands for the Mobile-Satellite Service	)	RM-9911
	)	
Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service	)	RM-9498
	)	
Petition for Rule Making of UTStarcom, Inc. Concerning the Unlicensed Personal Communications Service	)	RM-10024

REPLY COMMENTS OF VERIZON WIRELESS

SUMMARY

Verizon Wireless respectfully submits these reply comments in response to the Commission's Third Notice of Proposed Rulemaking to allocate spectrum that will support the development of advanced wireless services ("AWS").[1] The comments filed

[1] *In the Matter of Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New*

in response to the Notice agree on several key points. First, there is broad agreement that the Commission's allocation and service rule decisions must take into account potential interference to existing licensees.[2] While Verizon Wireless appreciates, and in fact encourages, the Commission's efforts to make more spectrum available for AWS, it should not do so in a manner that harms existing services.

Second, there is considerable support for the reallocation of additional spectrum for AWS in a manner that promotes the development of broadband services that will require more "downstream" spectrum (i.e., from the network to the customer). Verizon Wireless believes that the Commission can best promote such services by allocating and assigning spectrum in accordance with an asymmetrical band plan, as described in its previously filed comments.[3]

Finally, all commenters agree that multipoint distribution service ("MDS") systems currently operating in the 2150-2160/62 MHz band must be cleared to make room for AWS. While we believe that there may be numerous relocation options available to the Commission, we present two suitable options for the Commission's consideration.

Advanced Wireless Services, including Third Generation Wireless Systems (ET Docket No. 00-258) ("AWS Proceeding"), Third Notice of Proposed Rulemaking ("Notice"), FCC 03-16 (rel. Feb. 10, 2003).

[2] *See* Comments of the Cellular Telecommunications & Internet Association (filed Apr. 14, 2003) ("CTIA Comments"), in response to Notice, at 2; *see also* Comments of Motorola, Inc. (filed Apr. 14, 2003) ("Motorola Comments"), in response to Notice, at *ii*; *see also* Comments of the Society of Broadcast Engineers, Inc. (filed Apr. 14, 2003), in response to Notice, at 1; *see also* Comments of ICO Global Communications (filed Apr. 14, 2003), in response to Notice, at 3.

[3] *See* Comments of Verizon Wireless (filed Apr. 14, 2003) ("VZW Comments"), in response to Notice, at 7.

I. THE COMMISSION SHOULD ADOPT AN ASYMMETRICAL BAND PLAN FOR ADVANCED WIRELESS SERVICES.

There is considerable support for Verizon Wireless' proposal to reallocate additional spectrum in the 2155-2180 MHz band for AWS and assign licenses based on an asymmetrical band plan.[4] Commenters correctly note that by combining this spectrum with spectrum already allocated to AWS in the 1710-1755 / 2110-2155 MHz bands, the Commission can greatly expand the consumer benefits of AWS – providing more downstream spectrum to support high-speed data and multimedia services, and doing so in a manner that is harmonized with existing international allocations.[5]

Verizon Wireless acknowledges that the Commission could, as an alternative, assign licenses in the 2155-2180 MHz band on an unpaired basis. This would, at least in theory, provide an opportunity for AWS license holders to acquire additional downstream spectrum, combine it with paired AWS licenses already acquired, and in that manner obtain the spectrum necessary to provide asymmetrical services.[6] In reality, this would not promote the development of asymmetrical wireless services and would not result in the most economically efficient use of the spectrum. Prospective bidders seeking asymmetrical frequency pairings will want their downstream spectrum to be contiguous,

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[4] CTIA Comments at 6; Motorola Comments at 14; *see also* Comments of Ericsson, Inc. (filed Apr. 14, 2003) ("Ericsson Comments"), in response to Notice, at 7; *see also* Comments of Cingular Wireless LLC (filed Apr. 14, 2003), in response to Notice at 3; *see also* Comments of The Wireless Communications Association International, Inc. (filed Apr. 14, 2003) ("WCA Comments"), in response to Notice, at 27-28.

[5] Motorola Comments at *ii*.

[6] This presumes that licenses in the 2155-2180 MHz band are auctioned subsequent to AWS licenses in the 1710-1755/2110-2155 MHz bands.

because that will provide the greatest flexibility in selecting a particular technology, reduce the cost of network and customer equipment, and promote the most efficient use of available spectrum resources. Moreover, companies that require the use of asymmetrical frequency pairs are not likely to bid on symmetrical licenses unless they know they can acquire the additional downstream spectrum required to support their planned asymmetrical services. For the aforementioned reasons, Verizon Wireless believes that the best way to support the development of wireless services that require asymmetrical spectrum is to assign licenses based on an asymmetrical band plan.[7]

II. THE COMMISSION CAN ACCOMMODATE THE RELOCATION OF MDS SYSTEMS IN THE 2.5 GHz BAND.

There is broad support for the reallocation of the 2150-2160 MHz band to AWS and the relocation of incumbent MDS systems to alternate spectrum.[8] Even the MDS industry supports such a plan, so long as they are provided comparable spectrum and receive full compensation for any relocation expenses.[9] Verizon Wireless disagrees, however, with the MDS industry's claim that the proposed 1910-1916/1990-1996 MHz band (the so called "G block") is the only viable spectrum to which MDS systems can be relocated.[10]

While there may be numerous relocation options available to the Commission, Verizon Wireless believes that two options are particularly well suited to the relocation of

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[7] Verizon Wireless Comments at 7.

[8] CTIA Comments at 5; Motorola Comments at 16-17; Ericsson Comments at 8.

[9] WCA Comments at 2-3; Nucentrix Comments at 2.

[10] WCA Comments at 12.

MDS systems currently operating at 2150-2160 MHz. First, these systems can be relocated to spectrum in the 2500-2690 MHz ("2.5 GHz") band, if that band is reconfigured as proposed by the MDS/ITFS licensees.[11] As Verizon Wireless has previously noted, all of the 190 MHz currently licensed to MMDS/ITFS in the 2.5 GHz band is not required to support the development of fixed broadband services.[12] While MDS operators have previously argued that a minimum of 158 MHz is required to support the provision of fixed broadband services,[13] that assessment was based on their expressed intentions to deploy supercell architectures – with base stations covering large geographic areas. Verizon Wireless previously noted that MDS operators would require far less spectrum if they deployed state-of-the-art, and more spectrally efficient, cellular-like architectures.[14]

It is clear from their 2.5 GHz band realignment proposal that MDS operators intend to do just that.[15] Consequently, we believe that MDS operators will not require access to as much ITFS spectrum, and that some of the ITFS spectrum can be reallocated

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[11] MDS/ITFS licensees propose to realign the 2.5 GHz band to better facilitate the provision of fixed and mobile broadband services, as well as educational applications in the band. This realignment would provide 132 MHz of paired spectrum to support the development of two-way broadband services employing cellular-like networks, while the remainder of the band could be used for one-way educational services. *See A Proposal for Revising the MDS and ITFS Regulatory Regime* ("MDS/ITFS White Paper"), Wireless Communications Association International, Inc., the National ITFS Association, and the Catholic Television Network, RM-10586, filed Oct. 7, 2002.

[12] *See* Comments of Verizon Wireless (filed Mar. 9, 2001) ("VZW Comments to NPRM"), in response to AWS Notice of Proposed Rulemaking ("NPRM"), at 20-23.

[13] *See* Comments of Wireless Communications Association International, Inc. (filed Feb. 22, 2001) ("WCA Comments to NPRM), filed in response to AWS NPRM, Appendix B, at 1.

[14] VZW Comments to NPRM at 21.

[15] *See generally* MDS/ITFS White Paper.

without impacting the development of broadband services or educational applications in the band. While it is not clear how much spectrum could be freed up, it is clear that the efficiencies realized through band realignment and the deployment of cellular-like architectures would allow the MDS systems operating at 2150-2160 MHz to be absorbed within the 2.5 GHz band without the need for additional spectrum.

Importantly, the amount of comparable spectrum that the Commission must provide to MDS incumbents is 10 MHz, and not 12 MHz as the MDS industry suggests. As the Commission notes, while certain MDS stations utilizing the 2160-2162 MHz band were "grandfathered," the band was reallocated to emerging technologies, and thus, any subsequent use of this band by MDS BTA license holders is secondary.[16] We agree with Nucentrix that, "while secondary licenses are not as valuable (or as useful) as licenses that exist on a primary basis," they may provide some utility to the license holder. However, that fact does not change the Commission's long-standing policy that "only stations with primary status are entitled to relocation."[17] MDS BTA bidders should have had no expectations otherwise.

MDS licensees should also not expect to receive compensation to clear out of the 2150-2160/62 MHz band unless there are systems that actually require relocation. As Nucentrix noted in its comments, "only existing facilities require funding from incoming licensees to move their facilities to different frequencies."[18] If the 2.5 GHz band is reconfigured as the MDS/ITFS licensees propose, there are likely to be very few (if any)

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[16] NPRM at fn 169.

[17] NPRM at ¶72.

[18] Nucentrix Comments at 10.

MDS systems operating in the 2150-2162 MHz band that require relocation. The record in this proceeding demonstrates that the 2150-2162 MHz ("2.1 GHz") band is used predominantly as an upstream channel for two-way broadband services, with the downstream channel provided in the 2.5 GHz band.[19] Indeed, the MDS industry previously argued that the important role of the 2.1 GHz band in facilitating the provision of two-way services made the 2.1 GHz and 2.5 GHz bands inseparable.[20]

Obviously, things have changed. The MDS industry now believes that the best course of action is to realign the 2.5 GHz band in a way that provides for paired spectrum entirely within the band.[21] They have, therefore, expressed their intention to eliminate the interdependence of the 2.1 GHz and 2.5 GHz bands. As a result, we would assume that the vast majority of systems utilizing the 2150-2162 MHz band would cease to operate as a result of the reconfiguration of the 2.5 GHz band, not as a result of any relocation initiative to clear the 2.1 GHz band. Consequently, there would be no 2.1 GHz systems to relocate and no relocation expenses that must be compensated. Certainly, the Commission would not expect incoming AWS licensees to pay for the reconfiguration of the 2.5 GHz band.

In the event the Commission does not adopt the MDS/ITFS proposal to realign the 2.5 GHz band, Verizon Wireless believes that there is another suitable option for

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[19] WCA Comments to NPRM, at 44; *see also* Comments of Sprint Corporation (filed Feb. 22, 2001), in response to AWS NPRM, at 31; *see also* Comments of WorldCom, Inc. (filed Feb. 22, 2001), in response to AWS NPRM, at 23; *see also* Comments of Nucentrix Broadband Networks, Inc. (filed Feb. 22, 2001), in response to AWS NPRM, at 20.

[20] *Id.*

[21] The joint MDS/ITFS proposal contemplates pairing the "lower" 2.5 GHz band (2500-2566 MHz) with the "upper" 2.5 GHz band (2624-2690 MHz).

relocating MDS systems out of the 2.1 GHz band. These systems can be moved to the 2483.5-2500 MHz band that was previously licensed to Big LEO operators in the mobile satellite service ("MSS"). Following the cancellation of MSS licenses previously held by Constellation and MCHI, the Commission is considering the possible reallocation of a portion of the Big LEO MSS band for other uses.[22] In the Big LEO NPRM, the Commission notes that Globalstar, the only licensee remaining in the band, is only using 5.5 MHz of spectrum and that the remaining 11 MHz, i.e., 2483.5-2492.5 MHz and 2498-2500 MHz, could be available for other uses.

Verizon Wireless agrees with the Commission's tentative conclusion. The portions of the Big LEO band not currently used for MSS could indeed be used for a better purpose – specifically, to accommodate the relocation of MDS systems out of the 2.1 GHz band. By moving Globalstar to the lower end of the Big LEO band (i.e., below 2490 MHz), MDS relocation could be accommodated in the 2490-2500 MHz band – in spectrum immediately adjacent to the 2.5 GHz MDS/ITFS band. This would provide MDS licensees with more contiguous spectrum, and allow them to incorporate all of their spectrum into a single cohesive band plan. Since the Big LEO band does not have to be cleared of incumbents, this proposal would also facilitate a more efficient relocation process since AWS auction winners would not have to pay for multiple relocations.

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[22] *In the Matter of Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands (IB Docket No. 02-364)*, Notice of Proposed Rulemaking ("Big LEO NPRM"), FCC 03-15 (rel. Feb. 10, 2003), at ¶272.

CONCLUSION

Verizon Wireless urges the Commission to allocate and make available for AWS the entire 2155-2180 MHz band. Moreover, this spectrum should be licensed with the 1710-1755/2110-2155 MHz bands already allocated to AWS as part of an asymmetrical band plan that would facilitate the provision of innovative wireless services and make the most efficient use of available spectrum. Furthermore, the MDS systems currently operating at 2150-2160/62 MHz should be relocated, if necessary, to the 2.5 GHz band, or alternatively, to the 2490-2500 MHz band.

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Certificate of Service

I hereby certify that on this 28th day of April copies of the foregoing "Reply Comments of Verizon Wireless" in WT Docket 00-258 were sent by hand delivery, or e-mail, to:

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